

REMARKS/ARGUMENTS

A. Summary of the Amendment

This is a full and timely response to the final Office Action dated April 19, 2006. By way of the present amendment, claims 1, 3, 7, 9, 13, and 15 are amended. Further, claims 19 to 25 have been withdrawn as the result of an earlier restriction requirement. Thus, claims 1 to 18 remain pending for the Examiner's consideration, with claims 1, 7, and 13 being independent claims.

B. Rejections Under 35 U.S.C. § 103(a)

Claims 1 to 18 are rejected as being unpatentable over U.S. Patent No. 6,270,393 (Kubota) in view of U.S. Publication No. 2004/0234396 (Hattori). These rejections are respectfully traversed, at least in view of the present amendment.

Independent claims 1, 7, and 13 recite a non-abrasive polishing fluid for use with a fixed abrasive chemical mechanical polishing pad. The claims define "non-abrasive" by reciting that the polishing fluid is a solution free of abrasive particles. The importance of this feature is set forth in the present specification. For instance, abrasive polishing fluids that include abrasive particles or abrasive slurries have some inherent disadvantages as set forth in paragraph 0006:

"When pressure is applied between [a] polishing pad and [a] wafer, mechanical stresses are concentrated on the exposed edges of the adjoining cells in the polishing pad. Abrasive particles within the [prior art] fluid concentrated on these edges tend to create zones of localized stress on the wafer in the vicinity of the exposed cell edges. The above combination of chemical and mechanical stress creates localized pressure on the wafer and produces mechanical strain on the chemical bonds that form the surface being polished."

Paragraph 0060 summarizes tests performed to compare the non-abrasive polishing fluid of the present invention with conventional polishing fluids having abrasive particles or slurries:

“From these results it is clear that the CMP fluid of the present invention provides higher selectivity and overall consistency than the tested conventional CMP slurries when used for polishing wafers with a fixed abrasive CMP pad.”

It is clear from the teachings of the current specification that the non-abrasive polishing fluid of the present invention is used in an entirely different polishing environment, i.e., in conjunction with a fixed abrasive polishing pad surface, than the conventional abrasive polishing fluids. It follows that a person of ordinary skill in the art would appreciate that conventional abrasive fluids and slurries would not be of help when contemplating formulations for a non-abrasive polishing fluid such as that of the present invention.

Both Kubota and Hattori are directed to the types of abrasive slurries that are discussed in the background section of the present patent application, and are distinguished from in the present claims. Kubota is directed to abrasive slurries that include alumina grains (e.g. Abstract). Hattori is directed only to two abrasive particle slurries, a slower polishing slurry and to a faster polishing slurry, which are referred throughout the specification as “slurry (A)” and “slurry (B).” Although each of these references mentions the inclusion of some aliphatic molecules, such molecules are not taught as being useful for providing high selectivity and consistency in the polishing process. Further, a person of ordinary skill in the art would not be reviewing Kubota, Hattori, or teachings of other abrasive slurry compositions to formulate non-abrasive polishing fluids. Because Kubota and Hattori, alone or in combination, fail to teach or suggest the features of the independent claims 1, 7, and 13, it is respectfully submitted that the rejections under 35 U.S.C. § 103 should be withdrawn.

C. Conclusion

In view of Applicant's amendments and remarks, it is respectfully submitted that Examiner's objections and rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this

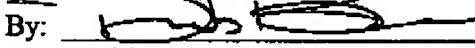
application, Applicants request that the Examiner contact the Applicants attorneys at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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